

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Prevalence of risk factors for coronary artery disease in urban Indian population - DRDO Health Study
AUTHORS	Sekhri, Tarun; Kanwar, Ratnesh; Wilfred, Reena; Chugh, Pradeep; Chhillar, Mitrabasu; Aggarwal, Rashmi; Sharma, Yogender; Sethi, Jyoti; Sundriyal, Jiwanti; Bhadra, Kuntal; Singh, Satveer; Rautela, Neeta; Chand, Tek; Kain, Manju; Singh, Shrawan

VERSION 1 - REVIEW

REVIEWER	Rajeev Gupta Fortis Escorts Hospital, Jaipur, India
REVIEW RETURNED	11-May-2014

GENERAL COMMENTS	<p>1. This is an important study among men and women commissioned by the Ministry of Defense, Government of India. This is one of the larger studies from India that has determined prevalence of risk factors.</p> <p>2. However, there a number of methodological issues, statistics are presently poorly and inappropriately; data presentation is poor; quality of language is poor and limitations of the study are not well discussed.</p> <p>3. I would suggest a major revision before this manuscript is acceptable.</p> <p>Specific comments:</p> <p>Abstract:</p> <p>1. The abstract is poorly composed. Please provide a single line statement as background of the study. Clearly mention the objective.</p> <p>2. The methods section should details of sampling in a word, describe use of statistics.</p> <p>3. The results section should provide more details of other risk factors. The authors have focused on diabetes and not on other risk factors. I would like to see various lifestyle risk factors (sedentary habits, diet, smoking, non-smoked tobacco use) as well as biological factors (BMI, abdominal obesity, hypertension, high total cholesterol, low HDL cholesterol, diabetes, metabolic syndrome) in this section.</p> <p>4. The conclusion section should be a one line statement highlighting the main finding.</p> <p>Introduction:</p> <p>5. This is poorly written part of the article. Please review the current status of CHD/CVD in India.</p> <p>6. The data in National Commission of Macroeconomics and Health Report is dated. Please use newer data and newer estimates. Global Burden of Diseases is a good data source. Otherwise use WHO data sources.</p> <p>7. It is incorrect to state that more than 40% of patients with CAD are</p>
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	<p>less than 40 years in India. No study has reported these numbers and these are conjectural statements.</p> <p>8. Please add a paragraph regarding previous studies in India. There are multiple large studies in India to determine risk factors in urban subjects (Industrial study, ICMR study, India Heart Watch, Indian Women's Health Study, etc.).</p> <p>8. Clearly specify the aims and objective in the last paragraph.</p> <p>Methods:</p> <p>9. This section should clearly describe the sample size calculations and sampling method.</p> <p>10. Were the non-responders similar in age and gender distribution as participants?</p> <p>11. Please clearly report the criteria for diagnosis of various risk factors. Use of total:HDL ratio for diagnosis of dyslipidemia is a non-validated method. Please clearly and separately report criteria for diagnosis of high total cholesterol >200, low HDL cholesterol <40/<50, high non-HDL cholesterol >130 using the ATP-3 cut offs.</p> <p>12. I would also like to view the prevalence of the metabolic syndrome in this article. Harmonised criteria should be used for its diagnosis.</p> <p>Results:</p> <p>13. The number of tables should be reduced.</p> <p>14. Please report age-group specific prevalence of lifestyle and biological risk factors.</p> <p>15. Please provide age-adjusted prevalence rates of various CVD risk factors in men, women and total population.</p> <p>16. The correlation matrix is not appropriate and should be deleted. Many of the parameters are not normally distributed and their data can only be analysed by non-parametric tests.</p> <p>Discussion:</p> <p>17. This is the weakest part of the article.</p> <p>18. The first statement should be the conclusions of the study.</p> <p>19. Second paragraph should mention differences in the current study as compared to national and regional studies in India, other low-middle income countries and developed countries.</p> <p>20. Reason for high prevalence of various risk factors should be discussed using data in the study and assumptions.</p> <p>21. The limitation section is not discussed at all.</p> <p>References:</p> <p>Please use uniform method of reporting the references. The references do not follow the BMJ open style.</p>
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REVIEWER	F Cademartiri EMC Rotterdam - NL
REVIEW RETURNED	15-May-2014

GENERAL COMMENTS	<p>This is a fair epidemiological assessment of large indian population. The study is performed in a very basic and straightforward manner. To me it does not say anything at this stage. A more comprehensive approach could bring more interesting information. Implementation of risk scores would clarify what is the difference between indian population and other more studied populations. Outcome of population is not assessed.</p>
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VERSION 1 – AUTHOR RESPONSE

The article has been modified in appropriate manner from our side as per the reviewer comments. The following responses describe the changes in the article as per reviewer comments point by point in a serial manner:

1. The objective in the abstract is mentioned clearly.
2. The participation in the study was voluntary and people were encouraged to participate in the study. The target population was all the employees working in the organisation. The study population is actually the no of persons who participated in the study. Sample size was not calculated.
3. Apart from the conventional risk factors of CAD other factors could not be studied in every case as it was a very large study involving 21 centres across the country.
4. The main findings of the study are mentioned in the conclusions section.
5. Introduction part has been modified.
6. “According to the reports of National Commission on Macroeconomics & Health, there would be 62 million patients with CAD in 2015 in India and of these 23 million would be patients younger than 40 years of age”. This is projection by National Commission published in 2005 and it does not represent the current status of CAD in India.
7. This point has been clarified in point number 6.
8. All major studies which were carried out in India have been mentioned with reference.
9. The aims and objectives of the study have been clearly described.
10. The non responders were similar in age & distribution as the cases studied.
11. We could not include ATP III cut offs. Total cholesterol and HDL cholesterol were calculated and ratio of Total cholesterol and HDL cholesterol has been used as coronary risk in various other studies.
12. Because of the large number of cases included, criteria of metabolic syndrome could not be calculated.
13. The appropriate number of tables has been included in the article.
14. The risk factors of all the age groups have been described.
15. The conventional risk factors of CAD have been described in detail.
16. The correlation as per the statistical values has been incorporated
17. The discussion has been modified as desired. The strengths and limitation of the study are clearly outlined.
18. The first statement of the conclusion is the outcome of the study.
19. The differences of our and other study have been mentioned.
20. The reasons of high risk of CAD have been discussed in the discussion part.
21. We have clearly mentioned the limitations of the study.
22. The references are reported as per instructions of BMJ

VERSION 2 – REVIEW

REVIEWER	Rajeev Gupta Fortis Escorts Hospital, Jaipur, India
REVIEW RETURNED	05-Aug-2014

GENERAL COMMENTS	The paper has improved considerable since last review. However, there are still a few concerns. 1. The language is still below standard and needs revision. Maybe an English language expert should be asked to help. 2. In the "highlights" section, please delete the second statement. There are a number of global studies with sample sizes of millions
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	<p>that are available. For example the China Biobank study has more than 500,000 participants and UK Biobank study has more than 5 million.</p> <p>3. The "introduction" section is long winded. The authors are advised to review reviews on the subject of CAD risk factors in India and write accordingly.</p> <p>4. The results section should present both age-group specific data, e.g., 20-29, 30-39, 40-49, et seq. The sample sizes in individual age-group appear sufficiently large to justify this.</p> <p>5. The references need correction and should be written in BMJ Open style.</p> <p>The major data on prevalence of risk factors should be age-adjusted to Indian urban population to provide more generalizability and comparability.</p>
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VERSION 2 – AUTHOR RESPONSE

Following changes have been made in the manuscript -

1. The language of the paper has been corrected to remove linguistic errors.
2. The statement has been deleted.
3. Appropriate changes in introduction have been made.
4. Age specific values of Total Cholesterol and HDL Cholesterol were analysed and have been added to the document.
5. The references are written in BMJ Open Style.